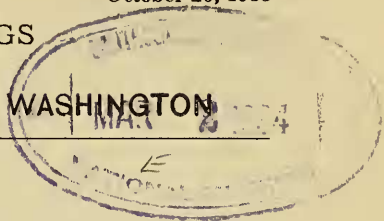


PROCEEDINGS
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THREE NEW RODENTS FROM SOUTHERN MEXICO.

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In dealing with cotton rats from western Mexico, J. A. Allen (Bull. Amer. Mus. Nat. Hist., vol. 22, art. 12, p. 210, July 25, 1906) states that *Sigmodon alleni* Bailey, described from San Sebastian, Mascota, Jalisco is "beyond question a synonym of *mascotensis*." *Sigmodon mascotensis* had been described by Allen from the same locality. Examination of the types of *mascotensis* and *alleni* shows that the former is a member of the *Sigmodon hispidus* group as assigned by Bailey (Proc. Biol. Soc. Washington, vol. 15, p. 108, June 2, 1902), while contrary to Allen's conclusion quoted the latter is a distinct species of the *Sigmodon fulviventor* group.

The cotton rats of the *fulviventor* group are rarer and much less widely distributed than those of the *hispidus* group. Two new members of the genus based upon scanty material, are here regarded as specifically distinct, owing to salient characters presented, and the absence of evidence of intergradation with any others of the group. A new pocket gopher of the *Orthogeomys grandis* group is also described.

***Orthogeomys grandis annexus*, subsp. nov.**

TUXTLA POCKET GOPHER.

Type.—From Tuxtla Gutierrez, Chiapas, Mexico (altitude 2,600 feet). No. 75949, ♀ adult, skin and skull, U. S. National Museum (Biological Survey collection), collected by Nelson and Goldman, September 11, 1895. Original number 8418.

Distribution.—Arid tropical valley of the Chiapas River in the interior of the state of Chiapas; limits of range unknown.

General characters.—A sparsely and coarsely-haired subspecies, closely resembling *Orthogeomys grandis scalops* of the arid lowlands near Tehuantepec, Oaxaca, in external appearance, but cranial details quite distinctive. Differing from *Orthogeomys grandis grandis* of the highlands of Guatemala in thinner, coarser pelage, and in important skull characters, notably the

straighter upper outline of cranium. Smaller than *Orthogeomys grandis nelsoni* of the high mountains of northeastern Oaxaca, with thinner pelage and divergent cranial features.

Color.—*Type*: Upper parts and outer surfaces of forearms and thighs near Mars brown of Ridgway; under parts and inner surfaces of limbs similar to upper parts, but somewhat lighter in tone, the pelage so sparse that the naked skin is clearly visible; feet very scantily clothed with light brownish hairs; tail naked, the skin yellowish.

Skull.—Similar in size and general form to that of *O. g. scalops*, but less angular; upper longitudinal outline nearly straight—straighter even than in *scalops*; rostrum more slender; nasals broader posteriorly; outer surface of zygoma narrower at point of union of maxilla and jugal; supraorbital borders of frontals more nearly parallel, with a less distinct interorbital constriction; squamosals broader between auditory meatuses; pterygoids broader, the interpterygoid space opening more widely posteriorly; auditory bullae less angular, more rounded and inflated; dentition about the same. Compared with *O. g. grandis* the skull is smaller, less angular; profile straighter, without the marked depression near the fronto-parietal suture and lacking the anterior frontal inflation of *grandis*; rostrum less elongated; lambdoid crest more evenly curved, less sinuous, less concave forward at median line, as viewed from above; squamosal shelves broader between auditory meatuses; jugal more expanded anteriorly, inserted farther forward in maxilla; basioccipital broader; pterygoids broad and shaped much as in *grandis*; auditory bullae more inflated anteriorly, bulging downward more nearly to lower plane of basioccipital; dentition about the same. Smaller, less elongated than that of *O. g. nelsoni*; profile straighter without anterior frontal swelling; ascending branches of premaxillae much narrower; nasals less decurved anteriorly, much broader, less tapering, the sides parallel near posterior ends; squamosals broader between auditory meatuses; basioccipital broader; auditory bullae more rounded and inflated, less angular; dentition about the same.

Measurements.—*Type*: Total length, 366 mm.; tail vertebrae, 119; hind foot, 49. *Skull* (type): Condylbasal length, 66; zygomatic breadth (anteriorly), 37.6; greatest breadth across squamosals, 39.1; squamosal constriction between auditory meatuses, 28.5; interorbital constriction, 14.2, length of nasals, 25.4; alveolar length of upper molariform toothrow, 14.2.

Remarks.—*Orthogeomys grandis annexus* is based on a single specimen which shows close relationship to the neighboring forms already described, but exhibits cranial characters beyond the range of individual variation usual in the group. It apparently represents a subspecies that may have an extensive range along the valley of the Chiapas River.

***Sigmodon guerrerensis*, sp. nov.**

GUERRERO COTTON RAT.

Type.—From Omilteme, Guerrero, Mexico (altitude 8,000 feet). No. 126936, ♀ adult, skin and skull, U. S. National Museum (Biological

Survey collection), collected by Nelson and Goldman, May 21, 1903. Original number 16467.

Distribution.—Known only from the type locality in the high mountains of central Guerrero.

General characters.—A large rich-colored species of the *Sigmodon fulviventor* group. Resembling *S. alleni* of Jalisco, but larger and color darker, more tawny; skull differing in detail. Similar to *S. vulcani* of the Volcan de Fuego, but color richer, much more tawny instead of ochraceous. Not very unlike *S. alticola* of the high mountains of central Oaxaca in color, but upper parts more uniformly tawny (dorsum distinctly 'lined' with buffy hairs in *alticola*), and ears blacker; cranial characters very distinctive.

Color.—*Type*: Upper parts light tawny, richest on rump, but purest on cheeks, shoulders and flanks, the top of head and back mixed or lined with black; under parts overlaid with cinnamon buff, becoming abruptly tawny on a narrow area across base of tail; ears blackish; outer sides of forearms and thighs like flanks; fore feet grayish buffy; hind feet dull ochraceous buffy over tarsus, becoming grayish on toes; tail dark brown above, lighter brown below. In an adult topotype the under parts are dull white instead of cinnamon buff as in the type.

Skull.—About like that of *S. vulcani*. Very similar to that of *S. alleni*, but larger, more angular, with relatively heavier molars; supraorbital and temporal ridges more strongly developed; interparietal large, the anterior border convex or nearly straight and upper incisors heavy and recurved as in *alleni*. Contrasting strongly with *S. alticola* as follows: Braincase relatively more elongated; rostrum and nasals decidedly broader; interparietal much longer (antero-posteriorly), with a prominent posterior angle; supraoccipital region rising nearly perpendicularly (not sloping forward at expense of interparietal as in *alticola*); dentition heavier.

Measurements.—*Type*: Total length, 278 mm.; tail vertebrae, 128; hind foot, 32. An adult female topotype: 293; 130; 33. *Skull* (type): Greatest length, 34; condylobasal length, 32; zygomatic breadth, 18.9; interorbital breadth, 5.6; nasals, 13.2; width of braincase (immediately in front of descending process of supraoccipital), 13.3; width of rostrum (maxillae at antorbital notch), 6.1; interparietal (at median line), 4.2; maxillary tooththrow (alveoli), 6.3.

Remarks.—*Sigmodon guerrensis* is closely allied to *S. alleni* and *S. vulcani*, but the characters pointed out are quite distinctive. It occurs in a more humid area and may be isolated by the broad arid valley of the Balsas River. While a member of the *S. fulviventor* group, as distinguished from the more widely dispersed *S. hispidus* group, it requires no close comparison with the much paler species *fulviventor* of the interior plateau region of Zacatecas and Durango.

Specimens examined.—Two, from the type locality.

***Sigmodon planifrons*, sp. nov.**

OAXACA COTTON RAT.

Type.—From Juquila, southwestern Oaxaca, Mexico (altitude 5,000 feet). No. 71918, ♀ adult, skin and skull, U. S. National Museum (Bio-

logical Survey collection), collected by Nelson and Goldman, February 28, 1895. Original number 7569.

Distribution.—Known only from the type locality in the mountains of southwestern Oaxaca.

General characters.—Size smallest of the *Sigmodon fulviventor* group; skull small and delicate in structure. Apparently allied to *Sigmodon alticola* of the high mountains of central Oaxaca, but general color paler, the ears clothed with finely mixed black and buffy banded hairs like body (contrasting with finely grizzled ears of *alticola*), and cranial characters distinctive. Closely resembling *S. alleni* in color, but cranial characters, especially the slenderer, more depressed rostrum and less recurved incisors quite different.

Color.—*Type:* Upper parts in general between ochraceous buff and ochraceous tawny (Ridgway, 1912), mixed with black, the dark hairs most numerous on top of head and back, thinning out along sides; rump suffused with light tawny; under parts overlaid with dull white, the under color dark plumbeous; ears about like back; feet buffy grayish; tail dark brown above, lighter brown below.

Skull.—Cranium small, relatively low and weakly developed. Somewhat like that of *alticola*, but smaller and flatter; zygomatic plate broader antero-posteriorly, as viewed from the side; auditory bullae much smaller; rostrum slender and upper incisors with slight recurvature as in *alticola*. Similar in general to that of *alleni*, but smaller, flatter, less angular, the basicranial region more smoothly rounded; rostrum slenderer, shallower, more depressed anteriorly; auditory bullae small as in *alleni*; upper incisors lighter, less recurved.

Measurements.—*Type:* Total length, 207; tail vertebrae, 88; hind foot, 29. *Skull* (adult ♀ topotype): Greatest length, 29.5; condylobasal length, 27.9; zygomatic breadth, 17.3; interorbital breadth, 4.7; nasals, 11.8; width of braincase (immediately in front of descending process of supra-occipital), 12.4; width of rostrum (maxillae at antorbital notch), 3.7; interparietal (at median line), 1.8; maxillary toothrow (alveoli), 5.9.

Remarks.—This form is based upon a skin and two skulls from the type locality. The skin closely resembles *S. alleni*, but the skulls suggest relationship to the nearer geographic neighbor *S. alticola*. It differs, however, from both in characters that seem to warrant specific recognition. No close comparison with the much larger, higher mountain species, *S. guerrensis* is required.